

Biosciences Career Pathway

MISSOURI ECONOMIC RESEARCH & INFORMATION CENTER
MISSOURI DEPARTMENT OF HIGHER EDUCATION
& WORKFORCE DEVELOPMENT
JANUARY 2025

What are Career Pathways?

Career Pathways are groups of occupations within a career field. Occupations within a pathway share common skills, knowledge, and interests. The pathways use industry-recognized credentials and are examples of how different levels of training or education can help provide opportunities for career advancement.

Missouri Numbers:



3,607 Employers



49,408 Workers



\$82,482 Average Wage

Why Have a Career in Biosciences?

Developments in biotechnology rapidly change the way we live, work, and learn.

Missouri has a strong presence in Plant and Agricultural Technology, Biomedicine, and Companion and Feed Animal Sciences. Biosciences represents 2 percent of total private sector employment, employing over 49,400 workers in 3,607 businesses in 2023.

Employment has been growing at an average of 2.4 percent per year from 2018 to 2023. Missouri has high employment concentrations in Biosciences, particularly in *Animal Food Manufacturing*, *Hog & Pig Farming*, and *Agricultural Chemical Manufacturing*.

Biosciences industry wages averaged \$82,482 in 2023, higher than the state average of \$62,563 for private industries.

From research to production, there are a variety of innovative and rewarding careers in the Biosciences fields of Production, Research & Development, and Animal Sciences.

Know the Basics

The Biosciences industry deals with how living things work and interact with each other, and teaches how to ask questions, make observations, and solve problems. Soft skills, such as interpersonal skills, professionalism, and dependability, are important in all industries and occupations, including Biosciences. The Biosciences industry deals heavily with research and production, so knowledge of mathematics and scientific principles is a must. Safety and quality control are critical in this industry, so attention to detail and continuous learning are necessary.

Skills needed for Success:

The Biosciences industry has industry-wide technical competencies that represent the knowledge and skills necessary to be successful in this industry. Research and development; manufacturing process design and development; knowledge of medical devices, drugs, and pharmaceuticals; as well as knowledge of agricultural feedstock and chemicals are some of the skills that may be needed for success.

Who's Hiring in Missouri?

Johnson & Johnson
Bayer Corporation
Merck & Company
Bausch Health
Archer Daniels Midland



Production

Research & Development

Animal Sciences

Now

Short-Term On-the-Job Training

Helpers-Production Workers
Entry: \$33,390 Average: \$39,470

**Weighers, Measurers, Checkers,
& Samplers, Recordkeeping**
Entry: \$36,160 Average: \$43,040

**Veterinary Assistants & Laboratory
Animal Caretakers**
Entry: \$28,970 Average: \$33,230

Certificates: Forklift Operator

Degrees: Chemistry
Certificates: American Society for
Quality (ASQ), Certified Quality
Auditor

Certificates: Certified Manager of
Animal Resources

Next

Certificate, Associate Degree, Apprenticeship, Moderate- to Long-Term On-the-Job Training

**First-Line Supervisor of
Production Workers**
Entry: \$49,940 Average: \$67,880

Industrial Machinery Mechanics
Entry: \$47,370 Average: \$58,880

**Chemical Equipment Operators
& Tenders**
Entry: \$37,880 Average: \$50,420

Degrees: Industrial Mechanics
and Maintenance
Certificates: Commercial
Driver's License, Chemical
Operator

Chemical Technicians
Entry: \$45,240 Average: \$57,160

Agricultural Technicians
Entry: \$36,930 Average: \$55,980

**Inspectors, Testers, Sorters,
Samplers, & Weighers**
Entry: \$38,600 Average: \$50,740

Degrees: Chemistry
Certificates: American Society
for Quality (ASQ), Certified
Quality Auditor

**Veterinary Technologists &
Technicians**
Entry: \$31,870 Average: \$38,600

Certificates: Veterinary
Technician/Technologist,
Laboratory Animal Technician

Later

Bachelor's Degree or Advanced Degree

Industrial Production Managers
Entry: \$80,910 Average: \$117,000

Chemists
Entry: \$65,220 Average: \$99,370

Veterinarians
Entry: \$78,250 Average: \$104,380

Chemical Engineers
Entry: \$76,490 Average: \$109,000

Medical Scientists
Entry: \$63,850 Average: \$94,560

Degrees: Engineering,
Business Administration &
Management

Degrees: Chemistry, Clinical
Laboratory Science/Technologist,
Chemical Engineering

Degrees: Animal Sciences,
Horticultural Operations,
Veterinary Medicine

Sources:

Lightcast™

Employment and Training Administration, Competency Model Clearinghouse

2023 Occupational Employment and Wage Statistics, U.S. Bureau of Labor Statistics

Quarterly Census of Employment and Wages, U.S. Bureau of Labor Statistics

Top employers data is based on 2024 online job ads



This workforce product was funded by a grant awarded by the U.S. Department of Labor, Employment and Training Administration. The product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The U.S. Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, the accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner.